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# Welcome to ArcExplorer Java

# 1

## IN THIS CHAPTER

- **What you can do with ArcExplorer Java**
- **Installing ArcExplorer Java**
- **How to get help**

Welcome to ArcExplorer Java, a geographic data explorer developed by Environmental Systems Research Institute, Inc. (ESRI). You can use ArcExplorer Java to view and query geographic data stored on your computer or on the Web.

ArcExplorer Java offers tools for viewing and querying your spatial and attribute data, performing spatial analysis tasks, such as selecting and buffering features, creating a variety of maps, such as unique symbols and graduated symbols and much more. You'll be amazed at the ease with which you can take advantage of these tools.

## What you can do with ArcExplorer Java

Using ArcExplorer Java, you can:

- Pan and zoom the map's extent.
- Query spatial and attribute data.
- Create a buffer around selected features.
- Measure distances on your map.
- Create one symbol, unique symbols, and graduated symbols maps.
- Label map features with many options for effects.
- Locate an address.

ArcExplorer Java also features legends, overview maps, saving and retrieving projects, and map printing.

# Installing ArcExplorer Java

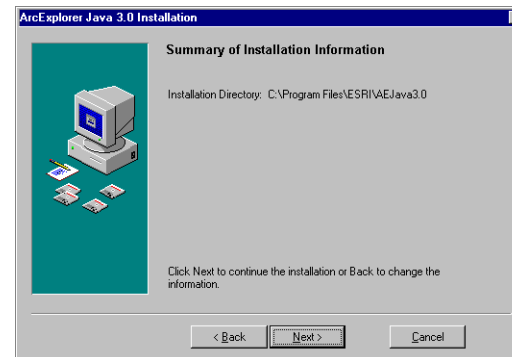
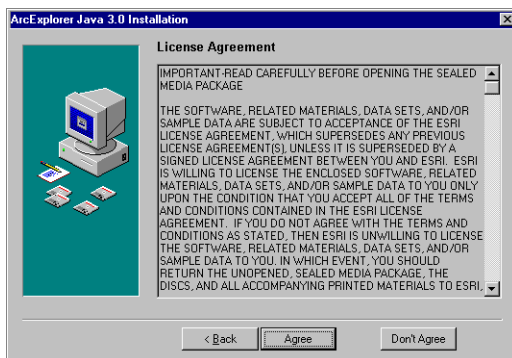
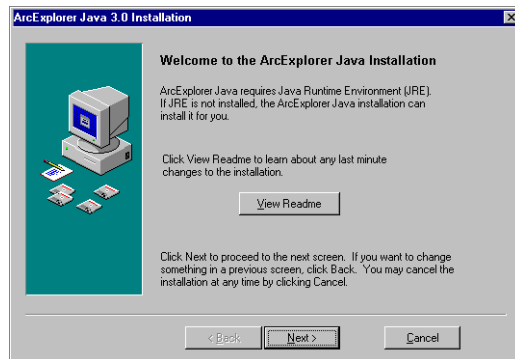
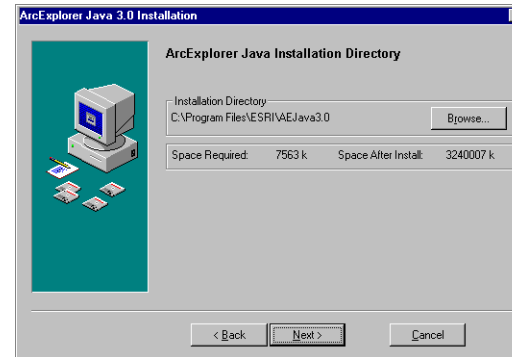
## What you need to install ArcExplorer Java

ArcExplorer Java can be installed on a Windows or Solaris operating system.

## How to install ArcExplorer Java on a Windows operating system

To begin installation, navigate to the AEJavaSetup.exe, in the directory where you downloaded it from the Web.

Double-click the AEJavaSetup.exe and follow the on-screen instructions.



**How to install ArcExplorer Java on a Solaris  
operating system**

## How to get help

ArcExplorer Java has provided several ways for you to get help. In addition to this book, you can use ArcExplorer Java's online help system and ESRI on the Web to answer your questions.

### Getting online help

If you need more information about a specific option or procedure, use ArcExplorer Java online help.

Click the Help menu and click Help Contents to open the online help system.

### Java Console messages

When ArcExplorer Java encounters an error with data or an operation, most often a message is posted in the status bar of the main window.

All messages generated by ArcExplorer Java are posted to the Java Console. You can open the Java Console by clicking the Help menu and clicking Java Console.

The message level in the Java Console is set by clicking the View menu, clicking Message Level, and pointing to one of the choices.

You can click the File menu and click Save As to save the message in the console to a text file.

### Visit ESRI on the Web

#### ESRI home page

[www.esri.com](http://www.esri.com) has up-to-date information on ESRI software and services.

### ArcExplorer Java home page

- The latest information about ArcExplorer Java
- Current versions of Troubleshooting and Frequently Asked Questions

Be sure to check this site often for all the latest information on ArcExplorer Java.

# Adding data layers

# 2

## IN THIS CHAPTER

- **Adding shapefiles**
- **Adding images**
- **Adding SDE layers**
- **Viewing data on an ArcIMS Web site**
- **Viewing data on an ArcView IMS Web site**
- **Viewing data on a MapObjects IMS Web site**

This chapter shows you how to add your own data to ArcExplorer Java.

ArcExplorer Java's key functionality is the viewing of spatial data. This chapter shows you how to view data that are stored on your computer or published on a Web site.

Data from local sources, an SDE server, or a Web site can be added to ArcExplorer Java.



## Adding shapefiles

You can add shapefiles to ArcExplorer Java with the Catalog. The Catalog is opened with the Add Layers button.

### Tip

#### Refreshing the Catalog

*Right-click on Local and click Refresh to see an updated listing of folders and mapped drives. Right-click on a folder and click Refresh to see an updated listing of files in a folder.*

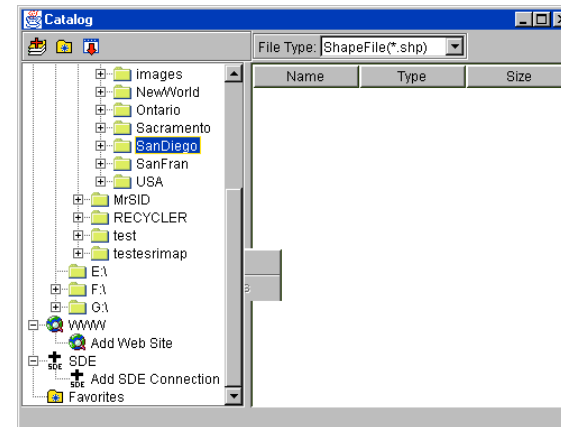
#### Shapefiles with duplicate field names are not allowed

*Shapefiles that contain duplicate field names cannot be drawn in ArcExplorer Java and are thus not listed in the Catalog.*

#### Organizing Favorites

*Favorites is a list of shortcuts to commonly used folders. Right-click on a folder in the Catalog and click Add to Favorites.*

1. Click the Add Layers button to open the Catalog.
2. Navigate to the folder that contains shapefiles.
3. Click a file to add.
4. Click the Add Layers button.  
Repeat steps 3 and 4 to add more shapefiles.
5. Click the Close button to dismiss the Catalog.



## Adding images

You can add TIFF, JPEG, PNG< and GIF image types to ArcExplorer Java.

Each image must have a corresponding world file.

### Tip

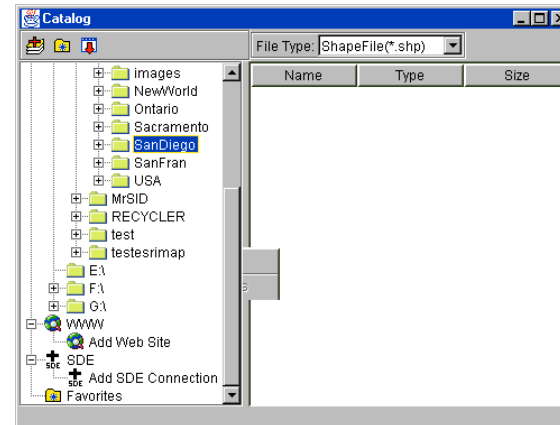
#### **ImageDirectory: Adding all the images in a folder**

*If a folder contains more than one image, the top entry in the Catalog will be \*ImageDirectory. By clicking this choice, you can add all the images in a folder.*

#### **Organizing Favorites**

*Favorites is a list of shortcuts to commonly used folders. Right-click on a folder in the Catalog and click Add to Favorites.*

1. Click the Add Layers button to open the Catalog.
2. Click the File Type dropdown and choose Image Files.
3. Navigate to the folder that contains images.
4. Click an image to add.
5. Click the Add Layers button. Repeat steps 4 and 5 to add more images.
6. Click the Close button to dismiss the Catalog.



## Adding SDE layers

ArcExplorer Java recognizes data stored in an SDE database. Consult with your SDE administrator if you are not sure if your system is set up to connect to an SDE database.

### Tip

#### Disconnecting from SDE

Disconnect from an SDE database by right-clicking on the SDE server in the left panel of the Catalog and clicking *Disconnect*.

#### Connections errors

If your connection to SDE failed, you can use the Java Console to see detailed error messages. To open the Java Console, click the *Help* menu and click *Java Console*.

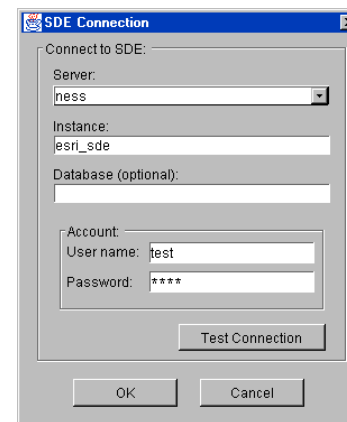
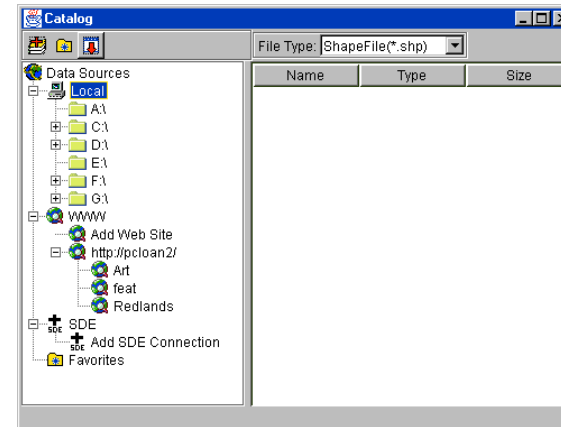
#### Organizing Favorites

*Favorites* is a list of shortcuts to commonly used folders. Right-click on a folder in the Catalog and click *Add to Favorites*.

## Adding SDE layers

1. Click the Add Layers button to open the Catalog.
2. Double-click SDE.
3. Double-click Add SDE Connection.
4. Type the name of the server.
5. Type the SDE instance.
6. If necessary, type a database name.
7. Type your user name and password.
8. Click Test Connection (optional). If the connection succeeded, continue. If connection failed, use the error message to correct the failure.
9. Click OK to connect.

The SDE database is now listed in the Catalog.



## Adding data from an ArcIMS Web site

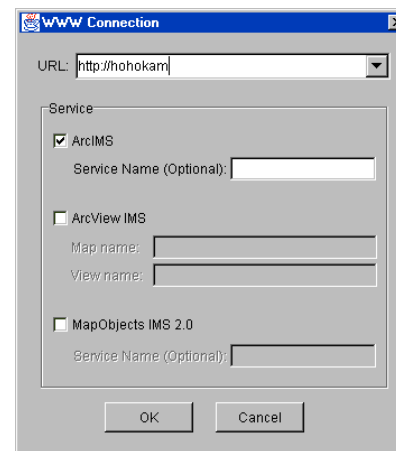
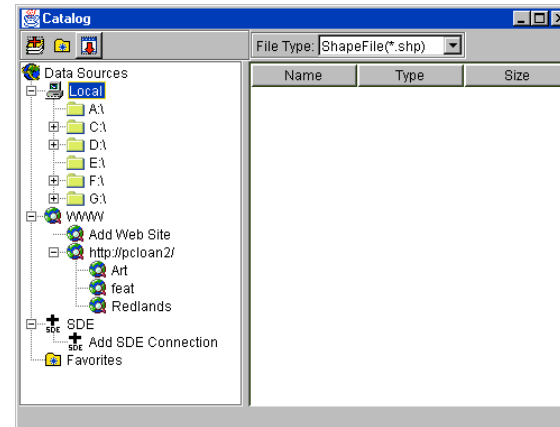
From ArcExplorer Java, you can view data on a Web site served with an ArcIMS Spatial Server.

An ArcIMS Spatial Server can serve an Image MapService or a Feature MapService.

Entering a service name to an ArcIMS Spatial Server is optional. If you do not specify a service name, you will be connected to all the sites running on that Spatial Server.

1. Click the Add Layers button to open the Catalog.
2. Double-click the WWW icon.
3. Double-click Add Web Site to open the WWW Connection dialog.
4. Type the name of the server.
6. Click OK to connect.

The Web site's MapServices appear in your catalog.

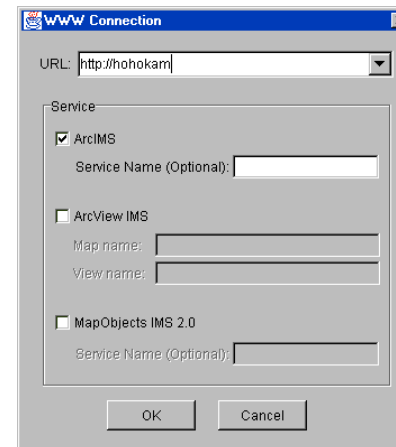
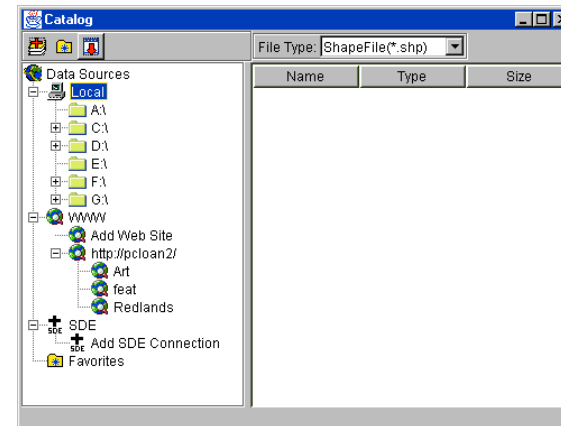


## Adding data from an ArcView IMS Web site

From ArcExplorer Java, you can view data on a Web site served with ArcView IMS.

1. Click the Add Layers button to open the Catalog.
2. Double-click the WWW icon.
3. Double-click Add Web Site to open the WWW Connection dialog.
4. Type the name of the server.
5. Click ArcView IMS.
6. Type a Map Name.
7. Type a View Name.
8. Click OK to connect.

The Web site's MapServices appear in your catalog.

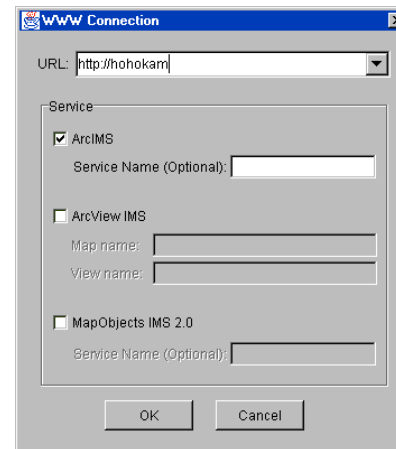
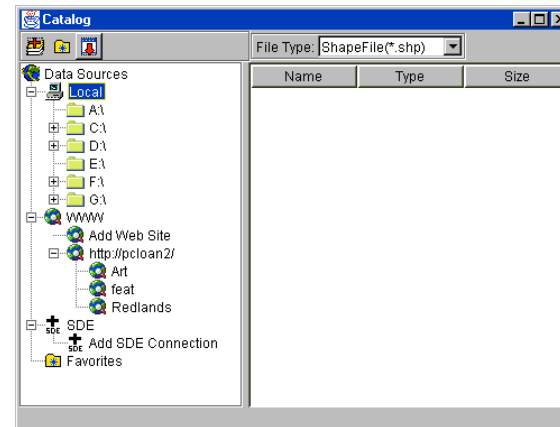


## Adding data from a MapObjects IMS Web site

From ArcExplorer Java, you can view data on a Web site served with MapObjects IMS.

1. Click the Add Layers button to open the Catalog.
2. Double-click the WWW icon.
3. Double-click Add Web Site to open the WWW Connection dialog.
4. Type the name of the server.
5. Click MapObjects IMS.
6. Click OK to connect.

The Web site's MapServices appear in your catalog.



# Properties of the legend, overview map, and scale bar

# 3

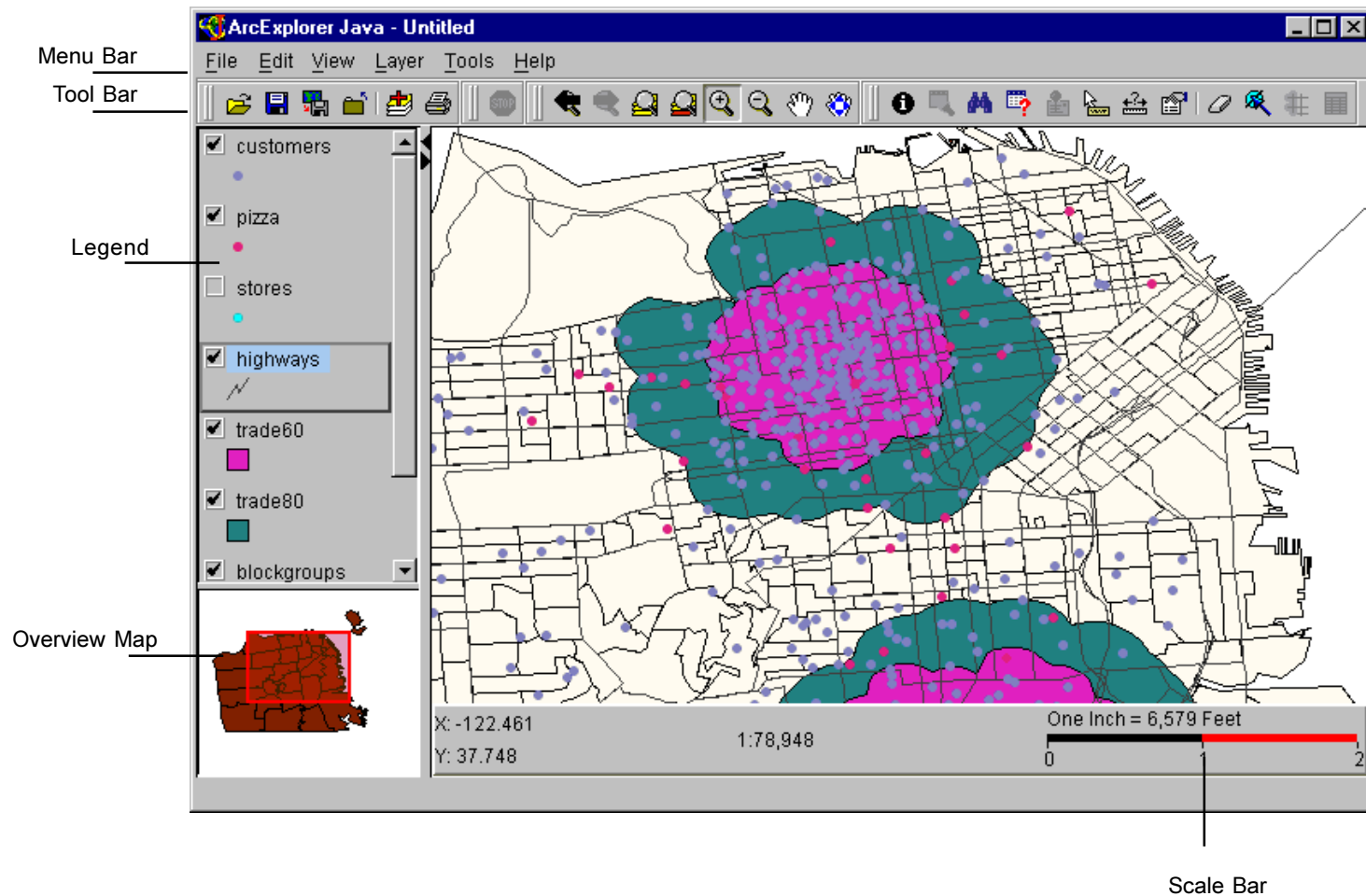
## IN THIS CHAPTER

- **Using the legend**
- **Adding an overview map**
- **Working with the scale bar**

This chapter introduces the ArcExplorer Java interface. You will learn how to set up and use the legend, overview map, and scale bar.

Terms used throughout this book in referring to the interface are defined in this chapter.

Here is a picture of ArcExplorer Java.





## Using the legend

All layers in a map are listed to the left of the map in the legend. The legend shows the layer name and the symbol used to draw each layer. The check box next to each layer indicates whether it is currently turned on or off in the map, that is, whether it is currently drawn on the map or not.

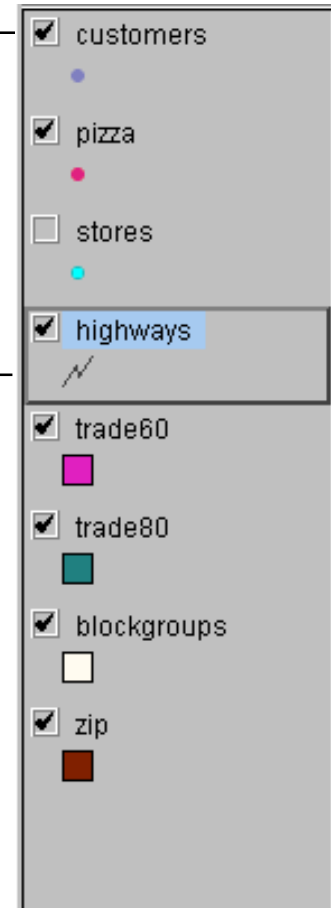
The order in which the layers are listed in the legend is also important. The layers at the top of the legend are drawn on top of those below it. Layers that form the background of your map are listed at the bottom of the legend. To change the order a layer is drawn in, drag the layer up or down in the legend. The Move Layer choice on a layer's right-click menu gives options for moving the layer.

You can change the width of the legend by dragging the border between the legend and the map either left or right. This is useful if you want to increase the width of the legend so that you can see long layer names.

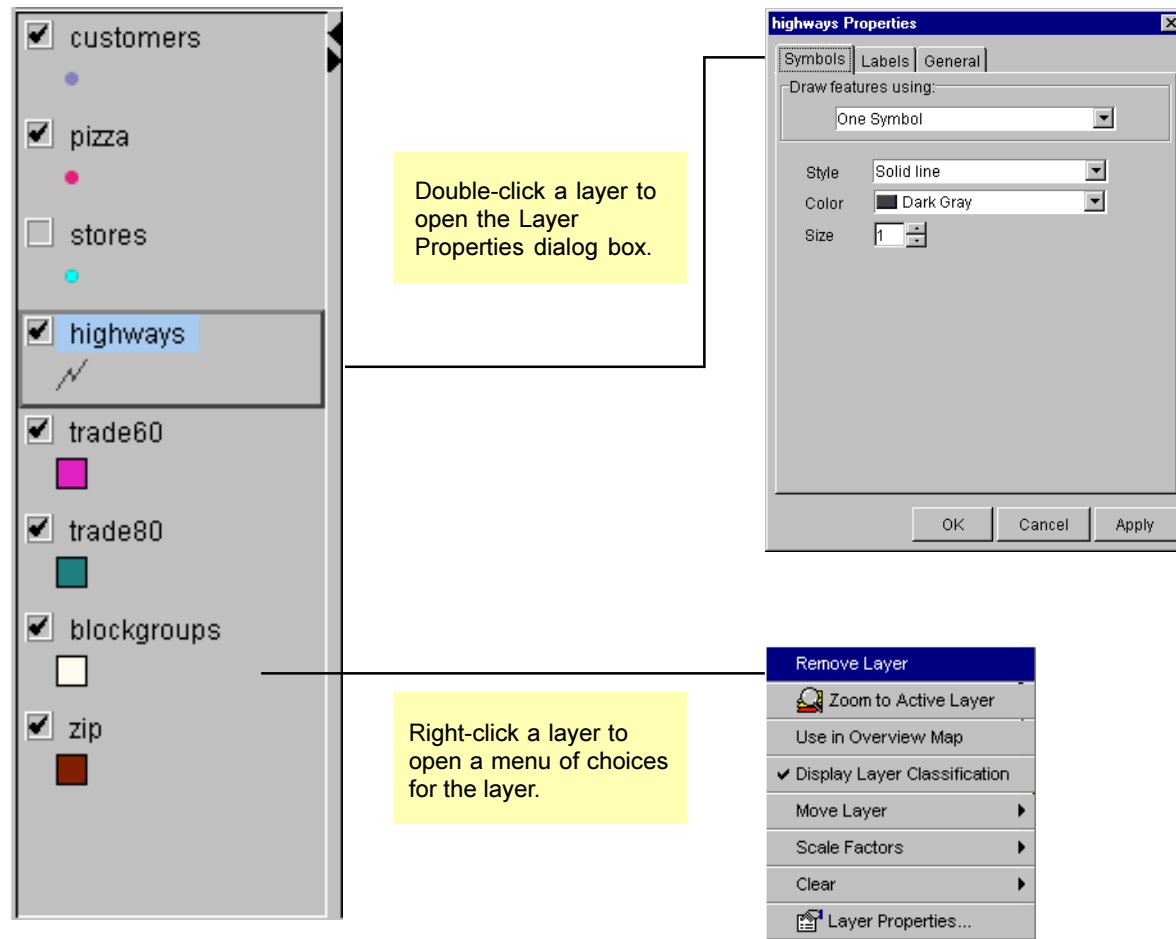
You can turn the legend off by clicking the View menu and unchecking the Legend choice.

Click the checkbox to the left of each layer's name to make the layer draw in the map. Clicking again will turn the layer off.

Make a layer active by clicking on its name in the legend. Many operations work only on active layers. When a layer is active, it appears raised in the legend.



Use these arrows to maximize or minimize the width of the legend.



## Adding an overview map

The overview map displays the full or partial extent of a layer with a red box outlining the current extent of the map. A full or partial extent is displayed depending on how far you have zoomed in.

Zooming in *very* close to a feature will result in a zoomed in map that may not have a red outline.

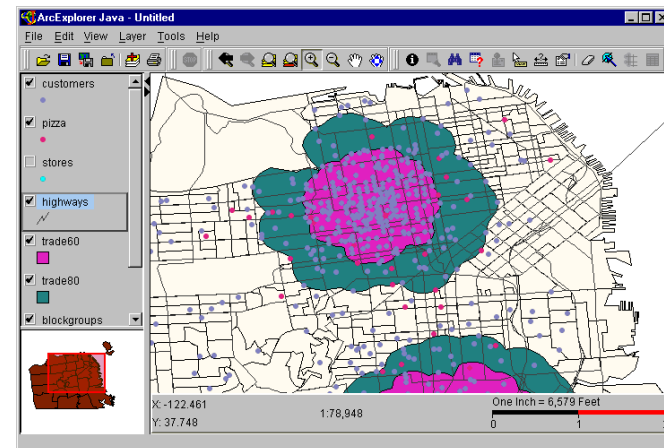
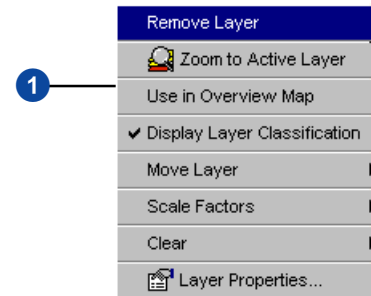
## Opening an overview map

1. Click the View menu and check Overview Map to add an overview map panel.

## Adding a layer to the overview map

1. Right-click on a layer listed in the legend and click Use In Overview Map.

To remove the layer, repeat step 1 to uncheck Use In Overview Map.



## Working with the scale bar

Each time you zoom in, zoom out, or resize the map, the scale changes. These changes are reported on the scale bar.

The scale bar consists of a representative fraction (1:24,000), a rule with distance markers, and an equation (one inch = 40 miles). The fraction (RF scale) is a common way to present scale in cartography and can be read as “one inch on the screen is equal to 24,000 inches on the ground.” The equation (sometimes referred to as a “verbal scale”) presents the same information but translates the single unit (an inch in this example) into a unit you’d use when getting around in the real world (e.g. miles).

### Tip

#### Right-click on scale bar to set properties

*You can also right-click on the scale bar to open the scale bar properties menus.*

## Adding a scale bar

1. Click the View menu and click Scale Bar.

1



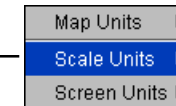
## Setting scale bar properties

1. Click the View menu and click Scale Bar Properties.
2. Point to Map Units, Scale Units, and Screen Units to set the appropriate units.

1



2



### Map units

Map units are the units in which geographic data are stored (data source units). You can set the map units as decimal degrees, feet, or meters.

### Scale units

Scale units display in the scale bar itself and in the right side of the verbal scale equation (e.g., 1 centimeter = 200 kilometers). You can set the scale units as miles, feet, meters, or kilometers.

### Screen units

Screen units correspond to the actual display on your computer monitor and are presented on the left side of the verbal scale equation (e.g., 1 inch = 40 miles). You can set the screen units as either inches or centimeters.

# Symbolizing layers

# 4

## IN THIS CHAPTER

- **Getting general information about a layer**
- **Drawing features with one symbol**
- **Making a graduated symbols map**
- **Making a unique symbols map**
- **Adding labels to a map**
- **Adding shields to line features**
- **Setting a layer's scale factors**

You can communicate complex geographic information more effectively using maps than with tables or lists because maps take advantage of our natural abilities to distinguish and interpret colors, patterns, and spatial relationships. When you display your data on a map you'll see distributions, relationships, and trends that you couldn't see before.

Choosing how to represent your data on a map may well be your most important mapmaking decision. Symbolizing your data involves choosing colors and styles that will represent features. It also involves grouping or classifying features according to their attribute values.

This chapter shows you how to create attractive maps and use symbolization as a powerful tool for exploring, understanding, and analyzing your data.

## Getting general information about a layer

How a layer is displayed can be changed using the Layer Properties dialog box.

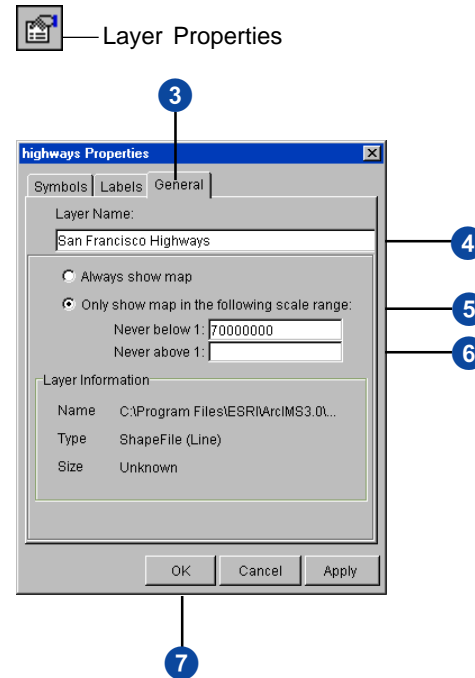
The General tab allows you to change the name of the layer as it appears in the legend and provides information about the datafile.

The General tab can also be used to set a scale factor for a layer.

### See Also

*See the 'Setting a layer's scale factors' section later in this chapter for more details on setting scale factors.*

1. Click a layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click the General tab.
4. Type a new name in the Layer Name box.
5. Click the Only show map in the following scale range button.
6. Type a scale to never show the layer above or below.
7. Click OK to close the dialog box and see the changes.

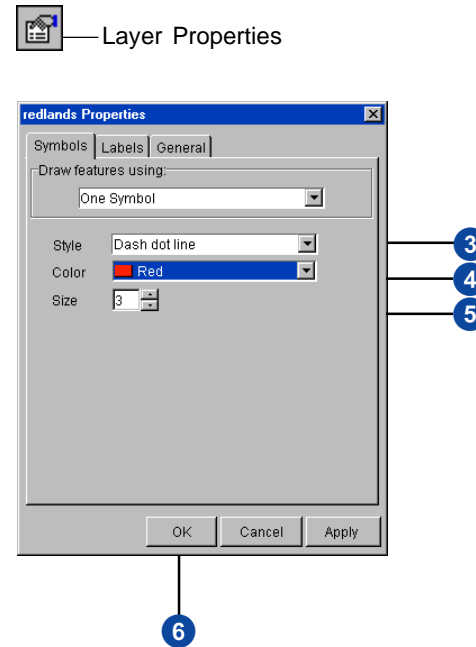


## Drawing features with one symbol

The One Symbol classification displays all the features in a layer with the same color and style. When you add a layer to ArcExplorer Java, it is displayed as One Symbol maps.

Using the Layer Properties dialog, you can change the color, size, or style of the one symbol map.

1. Click a layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click the Style box to apply a new style to the layer.
4. Click the Color box to choose a color.
5. Click the Size box to apply a new size to the layer.
6. Click OK to close the dialog box and see the changes.



## Making a graduated symbols map

You can create a graduated symbols map using the Layer Properties dialog box.

A graduated symbols map uses equal interval classification to create graduated color and/or size maps.

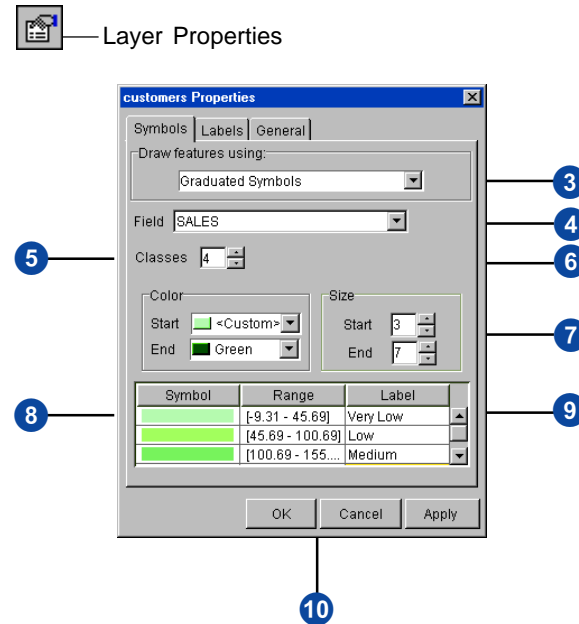
In the equal interval classification method, the range of attribute values is divided into equal-sized subranges; the features are then classified based on those subranges.

### Tip

#### Changing the value's label

*For a graduated symbols map, you can change the label of each value by typing a new value in the Label column. Be sure to press Enter after adding each new value.*

1. Click a layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click Graduated Symbols.
4. Click a Field.
5. Click a number of classes.
6. Click a style.
7. Click a Start and End Size and Color.
8. Click an entry in the Symbol column to change its color.
9. Double-click a value in the Label column to select it. Enter a new value.
10. Click OK to close the dialog box and see the changes.





## Making a unique symbols map

You can create a unique symbols map using the Layer Properties dialog.

The Unique Values classification displays features by applying a different color to each unique value for a specified field.

### Tip

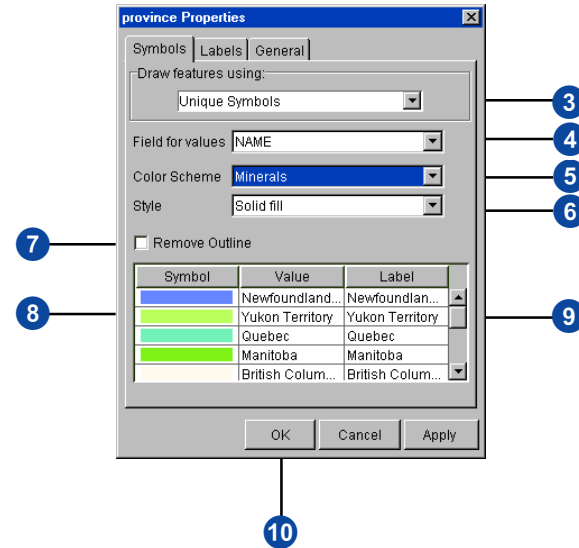
#### Changing the value's label

*For a unique symbols map, you can change the label of each value by typing a new value in the Label column. Be sure to press Enter after adding each new value.*

1. Click a layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click Unique Symbols.
4. Click a Field.
5. Click a Color Scheme.
6. Click a Style.
7. Check Remove Outline to remove the outline on features.
8. Click an entry in the Symbol column to change its color.
9. Double-click a value in the Label column to select it. Enter a new value.
10. Click OK to close the dialog box and see the changes.



Layer Properties



## Adding labels to a map

Add labels to features with the Labels tab of the Layer Properties dialog box.

The example on this page shows the label placement functionality for point features. Label placement for lines offers above, on, or below the line options.

### Tip

#### Using highest text quality

The check box for using highest text quality is also referred to as antialiasing.

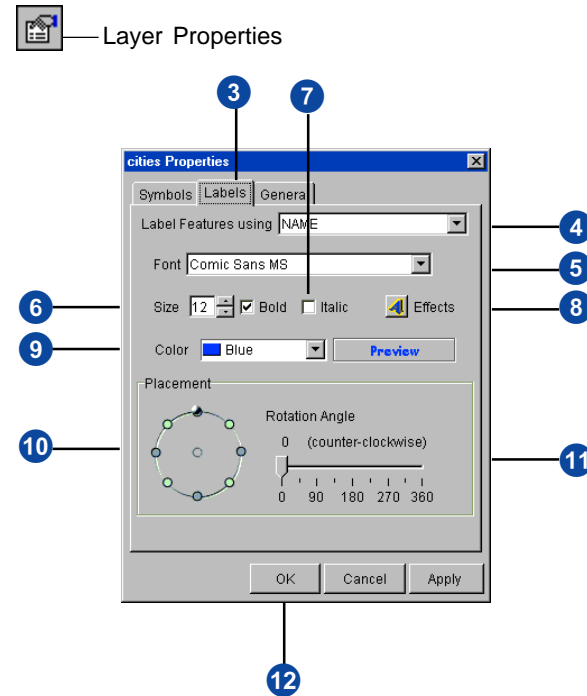
When lines are drawn at an angle, they may appear jagged due to the number of pixels available to display them. Antialiasing allows the line to be smooth by coloring adjacent pixels in such a way as to give the edge of the line a more gradual fade to the background color. Most of the symbols available with ArcIMS support this option, which requires more processing time.

#### Clearing labels

Open the Layer Properties dialog, click the Labels tab, and click None from the Label Features using dropdown to clear a layer's labels. You can also clear labels by right-clicking on a layer in the legend, clicking Clear, and pointing to Clear Labels.

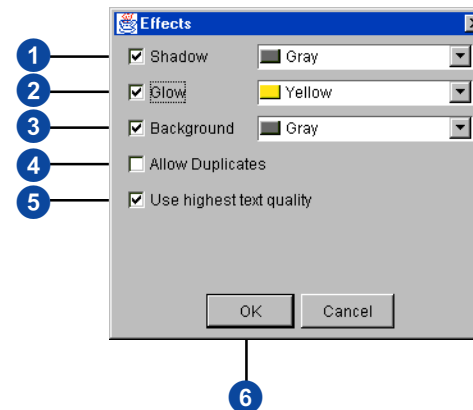
## Adding labels

1. Click a layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click the Labels tab.
4. Click a Field for labels.
5. Click a Font.
6. Click a Size.
7. Check the Bold or Italic boxes to change the text.
8. Click the Effects button for more options on changing the appearance of labels.
9. Click a Color.
10. Click a label placement.
11. Click an angle of rotation for the labels.
12. Click OK to close the dialog box and see the changes.



## Adding effects to labels

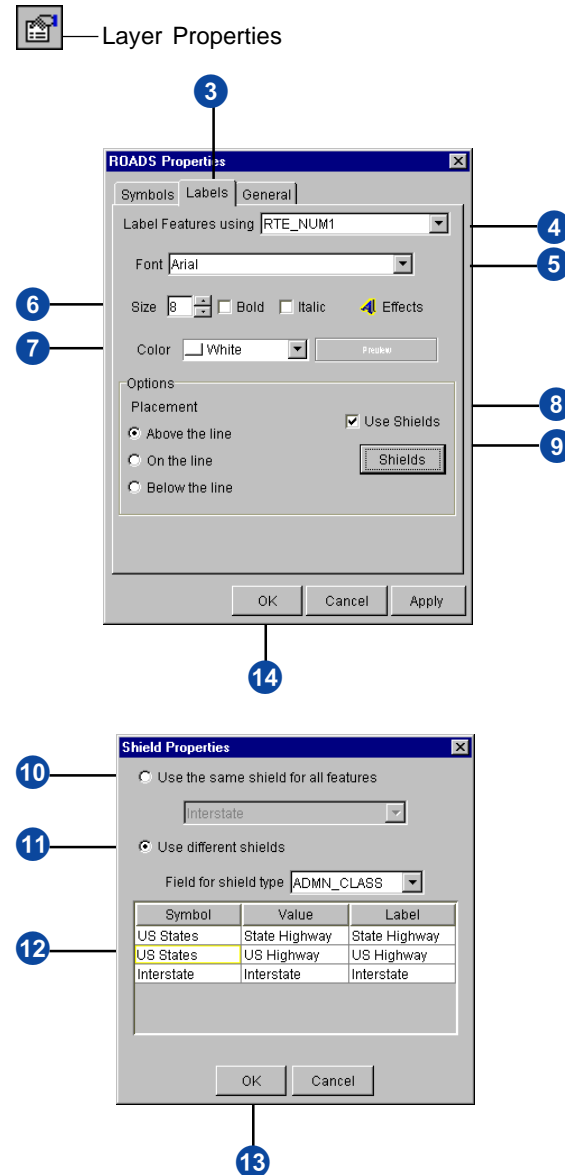
1. Check Shadow to add a three-dimensional effect.
2. Check Glow to add a color around the label.
3. Check Background to add a colored box under the label.
4. Check Allow Duplicates to allow all labels to display.
5. Check Use highest text quality to apply antialiasing.
6. Click OK.



## Adding shields to line features

You can add highway shields to line features using the Labels tab of the Layer Properties dialog box.

1. Click a line layer in the legend to make it active.
2. Click the Layer Properties button.
3. Click the Labels tab.
4. Click a Field for labels.
5. Click a Font.
6. Click a Size.
7. Click a color.
8. Check the Use Shields box.
9. Click Shields to open the Shield Properties dialog box.
10. Click a shield type from the dropdown list to apply to all line features.
11. Click the Use different shields option to apply different shield types to line features.
12. Click a Field to specify each shield type.
13. Click OK.
14. Click OK to close the dialog box and see the changes.



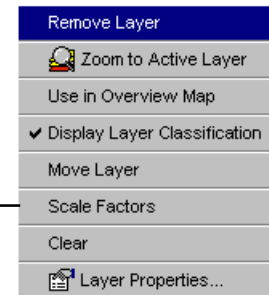
## Setting a layer's scale factors

You can control the scale at which a layer displays by setting its scale threshold. For example, you could set a U.S. state boundaries layer to turn off after you zoom past a certain point, and set the county boundaries to turn on at the same scale. Setting up scale factors can help keep the map display clean and focused on relevant data.

### Adding scale factors

1. Use the zoom tools to set an extent for your display.
2. Right-click the layer's name and click Scale Factors.
3. Point to Set Minimum Scale Factor if you want the layer to turn off if you zoom in any closer. Point to Set Maximum Scale Factor if you want the layer to turn off when you zoom further out.

2



---

### Removing scale factors

1. Right-click the layer's name, click Scale Factors, and point to Remove Scale Factors.

The map will refresh to show the layer.

# Getting and using the attributes of features

# 5

## IN THIS CHAPTER

- **Identifying features**
- **Finding features**
- **Searching for features**
- **Building a query expression**
- **Selecting and buffering features**
- **Displaying MapTips**
- **Measuring distances**

This chapter describes how to use ArcExplorer Java to query your data so you can get information. You can perform such queries in ArcExplorer Java by pointing at features on a map to identify them or finding which features meet certain criteria.

In this chapter you will learn how to use ArcExplorer Java to get information about features shown on a map.

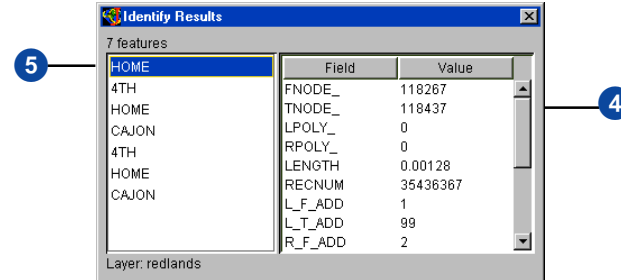
## Identifying features

Suppose you are looking at a map of the world, and you want to get information about a particular city. To get information about one of the features on your map, use the Identify tool. When you click a feature with this tool, ArcExplorer Java displays the attributes of the feature in a dialog.

1. Click a layer in the legend to make it active.
2. Click the Identify button.
3. Click a feature on the map.
4. The results of the Identify are shown in the Identify Results dialog.
5. If more than one feature is found, the features are listed in the Features panel. Click each feature to see its Identify results.



Identify



## Finding features

You can use the Find tool to locate particular features from the layers in your map. Find works by searching the layer or layers you specify for features with the value you specified. Only fields that have been defined as text strings, as opposed to numeric values, are searched.

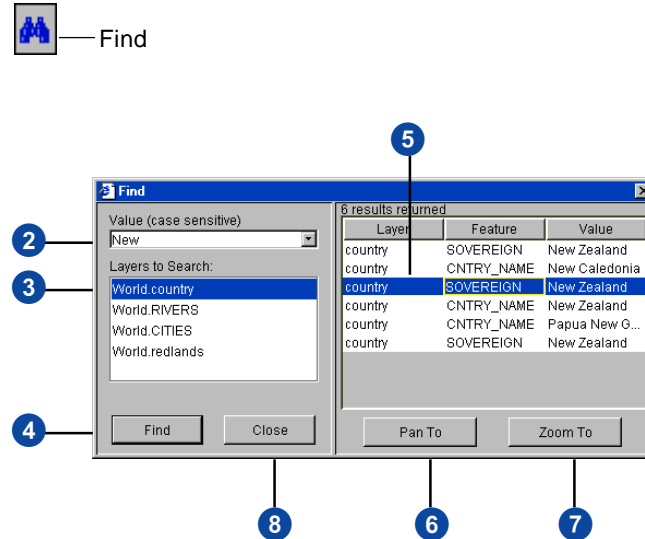
To search for features based on a numeric value, use the Query Builder tool described in the 'Building a query expression' section.

### Tip

#### Image MapService notation

*In the Find dialog box shown on this page, the Find is performed on an Image MapService. The Image MapService notation shows the name of the Image MapService and the Image MapService's sublayer separated by a period. In this example, the Image MapService is named World, and the sublayer used to find features is named country.*

1. Click the Find button.
2. Type any part of a word you want to find. (Do not use quotes around the search string.)
3. Click the layer or layers you would like to search.
4. Click Find to execute the search.
5. Click one of the results in the right panel to make it active.
6. Click Pan To to pan the view to the selected feature.
7. Click Zoom To to zoom the view to the selected feature.
8. Click Close when you are done finding features.



## Searching for features

The Search tool is enabled if you open a project or MapService that has been created with stored queries.

Once a stored query has been created, the Search tool allows you to type only a value to search for, rather than a full query expression.

### See Also

*You can learn more about creating stored queries using the Author component of ArcIMS in Chapter 3, 'Authoring MapServices' of the 'Using ArcIMS' book.*

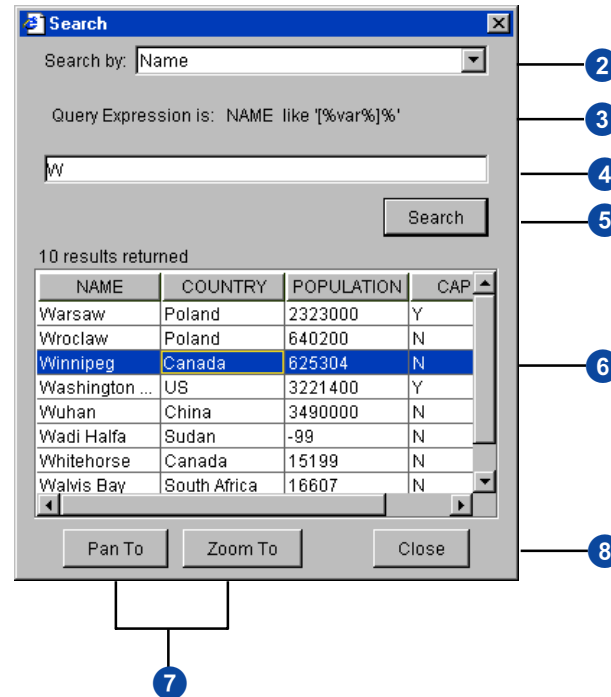
1. Click the Search button.
2. In the Search by list, click the stored query you would like to use.
3. The Query Expression is updated as you click a stored query.
4. Type a search string.
5. Click Search.
6. Click a result in the lower panel.

The feature is highlighted on the map.

7. Click Pan To or Zoom To to locate the result on the map.
8. Click Close to dismiss the dialog.



Search





## Building a query expression

A query expression is a precise definition of what you want to select. Building a query expression is a powerful way to select features because an expression can include multiple attributes, operators, and calculations.

Remember to include single quotes around values in your expression that are text strings. If you choose a value from the Values box, the single quotes are added for you.

You can generate statistics on a field by clicking Statistics. The Query Builder generates a simple set of statistics. On the Select a field to get statistics dialog box, you can click the Use Query Results? checkbox to only calculate statistics on the selected records.

The results of a query can be saved to a text file using the Save Results button. In the Save dialog box, type the name of the file with a .txt extension.

### Tip

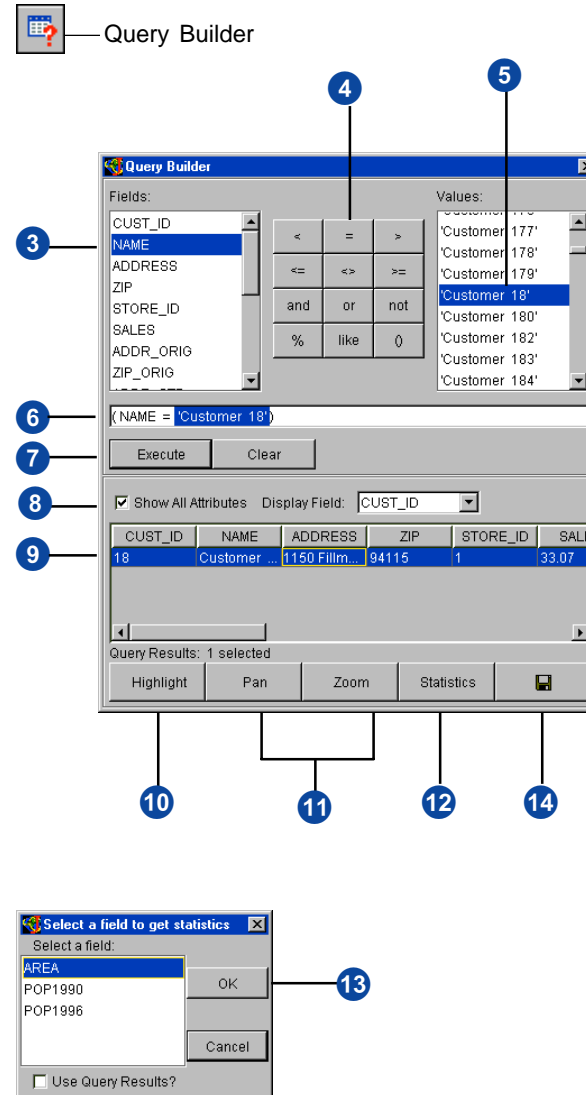
#### Working with query results

*The results of a query can be saved to a comma-delimited text file. The text file can then be used in another program, such as Microsoft Excel, to create a spreadsheet.*

1. Click a layer in the legend to make it active.
2. Click the Query Builder button.
3. Click a field to query.
4. Click an operator to be used in the expression.
5. Click a sample value or type a value for the expression.
6. Verify that the query expression is correct.
7. Click Execute.
8. Click a field in the Display Field dropdown to only show one field in the panel.

The results appear in the lower panel.

9. Click to select a value or values from the query results panel.
10. Click Highlight to make the selected feature(s) highlighted on the map.
11. Click Pan or Zoom to pan or zoom to the selected features.
12. Click Statistics.
13. Click a field to be used for statistics and click OK.
14. Click the Save button to save the results of a query to a text file.



## Selecting and buffering features

Use the Select Features button to select features and then view their attribute values using the Attributes button.

The Clear All Selection button clears the selected features in all layers. To clear the selection of a particular layer, right-click it in the legend, click Clear, and point to Clear Selection.

The map units must be set in order to create a buffer. The map units are the units your data is stored in; by default, ArcExplorer Java sets the map units to decimal degrees.

Once a buffer has been applied, you can use the buffer to select features from another layer.

### Tips

#### Check map units if buffer seems incorrect

*If the buffer is generating unexpected results, verify that the map units are set appropriately. You can set the map units by clicking the View menu, clicking Scale Bar Properties, pointing to Map Units and then clicking the appropriate unit.*

#### Smallest buffer distance

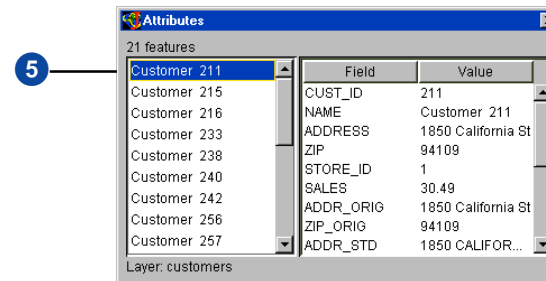
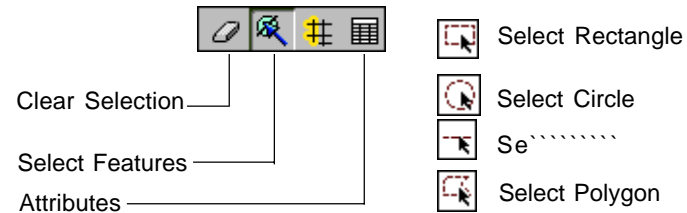
*The smallest buffer distance that can be specified is .007; distances*

## Selecting features

1. Click a layer in the legend to make it active.
2. Click the Select Features button and click either Rectangle, Circle, Polygon, or Line.
3. Click and drag to create a shape for selecting features.
4. Click the Attributes button to see the values for the selected feature or features.

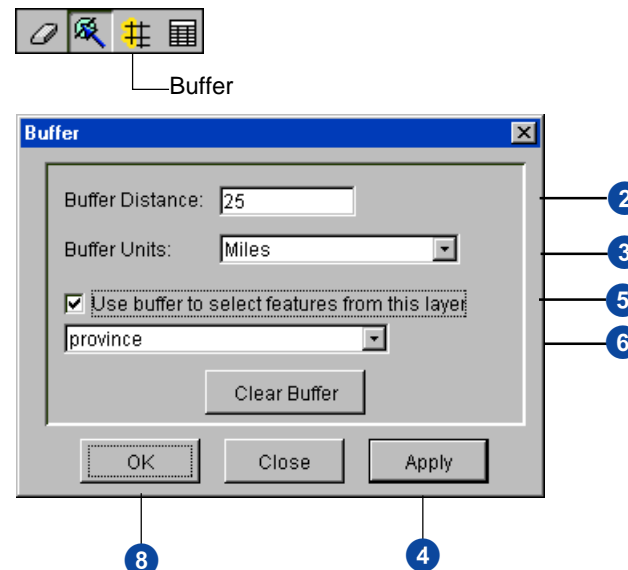
If multiple features were selected, they are listed in the left panel.

5. Click each feature to see its attributes.



## Buffering features

1. Click the Buffer button.
2. Type a distance for buffering the feature.
3. Click miles, meters, kilometers, or feet for the Buffer Units.
4. Click Apply to see the buffer.
5. Check the box to select features from another layer.
6. Click a layer to select features from.
7. Click OK to see the selection and dismiss the dialog.



## Displaying MapTips

MapTips are small popups that display data for a field you specify.

You can only display one MapTip per layer.

### Tip

#### Clearing MapTips

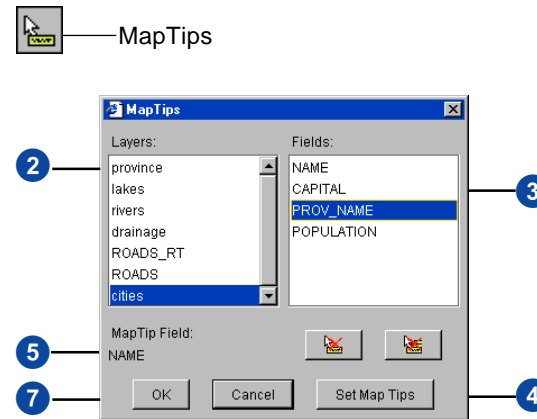
*You can clear a layer's MapTips by right-clicking on the layer in the legend, clicking Clear, and pointing to Clear MapTips.*

## Adding MapTips

1. Click the MapTips button to open the MapTips dialog.
2. Click a layer for MapTips.
3. Click the field you would like to display in the MapTips.
4. Click Apply.
5. The MapTip Field will update with the field you choose.

Repeat the process for each layer you would like to display with MapTips.

6. Click OK to dismiss the dialog and begin using MapTips.



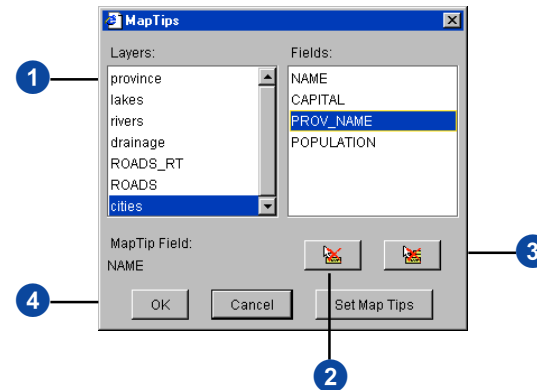
## Removing MapTips

### Removing MapTips from the selected layer

1. Click a layer to select it.
2. Click the Clear Selected MapTips Field button.

### Removing all MapTips

3. Click the Clear All MapTips Fields button.
4. Click OK to dismiss the dialog.



## Measuring distances

Use the Measure button to measure distances on your map. First, use the measure tool to specify a measurement unit. You can measure distances on your map in feet (ft), miles (mi), meters (m), or kilometers (km).

The map units must be set appropriately in order to get accurate measure results. The map units are the units your data is stored in. By default, ArcExplorer Java sets the map units to decimal degrees.

### Tip

#### Check map units if measure results seem incorrect

*If the measure results seem incorrect, verify that the map units are set appropriately. You can set the map units by clicking the View menu, clicking Scale Bar Properties, pointing to Map Units and then clicking the appropriate unit.*

#### Clearing measure totals

*You can clear the measure totals by clicking the Measure button and clicking Clear Measure Totals.*

### See Also

*See the 'Working with the scale bar' section in Chapter 3 to learn more about setting the map units.*

## Measuring a distance

1. Click the Measure button.
2. Click and drag a line defining the distance you would like to measure.

The segment and total measure appears in the upper left corner of the map.

## Changing the measure units

1. Click the Measure button and point to one of the measure units.

## Clearing the measure totals

Double-click on the map to clear the measure totals and end measuring.

# Address matching

# 6

## IN THIS CHAPTER

- **How address matching works**
- **Locating an address**

Addresses are probably the most commonly used form of geographic data. Geocoding is the process by which you add point locations defined by street addresses, or other address information, to your map. It's the computer equivalent of pushing pins into a street map on your wall. Address matching is a type of geocoding. You can do single record address matching on Image or Feature MapServices using ArcExplorer Java.

## How address matching works

Address matching is a process that compares an address to a street database with address ranges to determine whether the address falls on that street, and if so, approximately what location along the street. To match addresses, ArcExplorer Java compares components of addresses that you enter and the fields in the MapService.

Address matching involves interpolation; it is not an exact science. Address matching is the process of calculating geographic positions from addresses by interpolating from the from-address and to-address of a street segment.

To be able to locate an address in a MapService, the geocoding properties must be set using ArcIMS Author.

## Locating an address

The Locate Address button performs an address match: the locating of a point based on a text string of address values.

The Locate Address button is enabled on Viewers that have MapServices created with geocoding properties set up.

As more than one layer in a service could have geocoding properties set, use the Select Layer dropdown box to select the layer you would like to use to locate an address.

After locating an address, use the Clear Selection button to clear the point and label on the map.

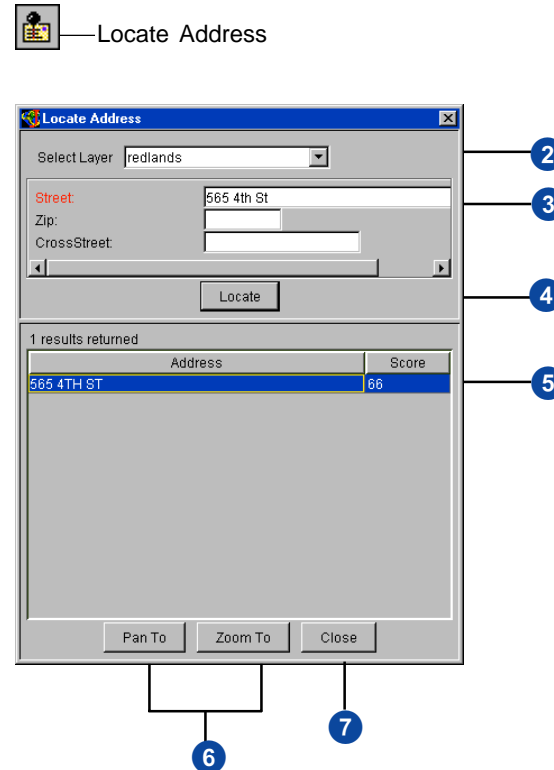
### See Also

*To learn more about setting a MapService's geocoding properties in ArcIMS Author, see Chapter 3, 'Authoring MapServices' in the 'Using ArcIMS' book.*

1. Click the Locate Address button.
2. Click the layer that you would like to locate an address from.
3. Type the values of the address. The more information entered, the more accurate your results will be.

Fields that are required to perform the address match appear in red.

4. Click Locate.
5. The results of the address match appear in the lower panel. Also, a point and a label are placed on the map.
6. Click Pan To or Zoom To to locate the result on the map.
7. Click Close to dismiss the dialog.



# Printing, copying, saving

# 7

## IN THIS CHAPTER

- **Printing a map**
- **Copying a map to a file**
- **Saving a project**

You've displayed your data in a map. You've chosen the symbols you want to use. This chapter outlines how to print a map, copy your map as an image, and save your ArcExplorer Java project.



## Printing a map

ArcExplorer Java provides a simple map layout in landscape (horizontal) format.

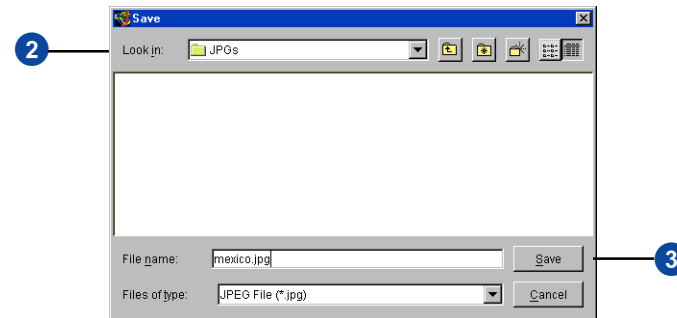
1. Click the Print button.

## Copying a map to a file

You may want to copy the image of a map for use in another application. ArcExplorer Java makes it easy to create a graphic image of your map.

1. Click the Copy Map Image to File button.
2. Navigate to a folder and type a name for the image.
3. Click Save.

A JPEG of your map has been saved.



## Saving a project

ArcExplorer Java saves projects in files with a .AXL extension. The paths to the data, whether layers are turned on or off, the map extent, any classification or labels applied to layers, and any scale factors you may have set are saved. When you create a .AXL file, you're not changing or altering the base data in any way.

1. Click the Save Project button.
2. Navigate to a folder to save the project in.
3. Click Save.